TOSHIBA

28Z23G
28Z23B
32Z23G
32Z23B

28Z27B
32Z27B

VIRTUAL DOLBY SURROUND

colour television

owner's manual

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For your safety

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured. So, please read the points below for your own safety. They are of a general nature, intended to help you with all your electronic consumer products and some points may not apply to the goods you have just purchased.

Air Circulation…

Leave at least 10cm clearance around the television to allow adequate ventilation. This will prevent the TV from overheating and consequential possible damage to the TV. Dusty places should also be avoided.

Heat Damage…

Damage may occur if you leave the TV in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity, or locations where the temperature is likely to fall below 5°C (41°F).

Mains Supply…

The mains supply required for this equipment is 230v AC 50Hz. Never connect to a DC supply or any other power source. DO ensure that the TV is not standing on the mains lead. DO NOT cut off the mains plug from this equipment, this incorporates a special Radio Interference Filter, the removal of which will impair its performance. In the UK, the fuse fitted in this plug is 13A, and is approved by ASTA or BSI to *BS1362*. It should only be replaced by a correctly rated and approved type and the fuse cover must be refitted.

IF IN DOUBT PLEASE CONSULT A COMPETENT ELECTRICIAN.

DO…

DO read the operating instructions before you attempt to use the equipment.

DO ensure that all electrical connections (including the mains plug, extension leads and inter-connections between pieces of equipment) are properly made and in accordance with the manufacturers' instructions. Switch off and withdraw the mains plug before making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

DO be careful with glass panels or doors on equipment.

DO NOT…

DON'T remove any fixed cover as this may expose dangerous voltages.

DON'T obstruct the ventilation openings of the equipment with items such as newspapers, table-cloths, curtains etc. Overheating will cause damage and shorten the life of the equipment.

DON'T allow electrical equipment to be exposed to dripping or splashing. Objects filled with liquids, such as vases, shall **not** be placed on or near the equipment.

DON'T place hot objects or naked flame sources, such as lighted candles or nightlights on, or close to the equipment. High temperatures can melt plastic and lead to fires.

DON'T use makeshift stands and NEVER fix legs with wood screws. To ensure complete safety, always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.

DON'T listen to headphones at high volume, as such use can permanently damage your hearing.

DON'T leave equipment switched on when it is unattended, unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure your family know how to do this. Special arrangements may need to be made for infirm or handicapped people.

DON'T continue to operate the equipment if you are in any doubt about it working normally, or it is damaged in any way – switch off, withdraw the mains plug and consult your dealer.

ABOVE ALL – NEVER let anyone, especially children, push anything into holes, slots or any other openings in the case – this could result in a fatal electric shock.

NEVER guess or take chances with electrical equipment of any kind – it is better to be safe than sorry.

Your new television's remote control

Simple, at-a-glance reference of your remote control's buttons…

To bring up on-screen information and for the teletext initial/index function

To mute the sound

***F/VTR** button to speed up some functions and for use with a **TOSHIBA** video*

For On/Standby mode

Please see page 22 for the main on-screen Menus

Number buttons

… For quick reference to topics, please see the INDEX at the end of this manual.

To select input from external sources

1 or 2 digit programme selection

Teletext control buttons

To display teletext

Selectable picture preferences

To change programme positions and teletext pages
To alter the volume
When using menus the arrows move the cursor on the screen up, down, left or right. ***ENTER*** *to confirm your selection*

On-screen Menus

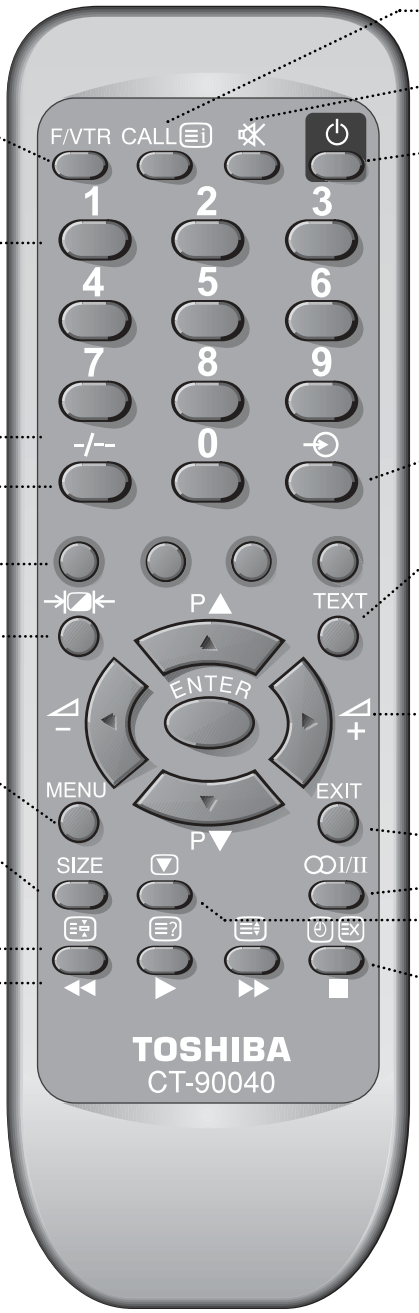
Widescreen mode selection

To exit Menus

Stereo/bilingual reception

No function on this model

Teletext control buttons



These buttons will also operate your **TOSHIBA** VIDEO. ***You must press the F/VTR button at the same time…***

to switch ON/OFF, *press*……

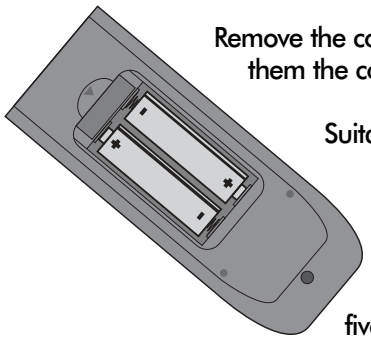
to STOP, *press* ……

to PLAY, *press*……

to FAST FORWARD/SKIP, *press*….

to REWIND/SKIP, *press* ……

The batteries... and the effective range of the remote…



Remove the cover to reveal the battery compartment. When fitting new batteries, take care to insert them the correct way round.

Suitable battery types for this remote are UM-3, AA, IEC R06, 1.5V.

Do not combine a used, old battery with a new one or mix battery types. Dispose of them in a designated disposal area.

The performance of the remote control will deteriorate beyond a distance of five metres or outside an angle of 30 degrees from the centre of the TV.

Connecting and turning on your new TV

To conserve energy, do not leave the set in Standby for long periods of time.

Before connecting any external equipment, turn off all main power switches.

The TV back connections…

WE RECOMMEND THAT YOU USE SCART LEADS IN ADDITION TO AERIAL CABLES WHEREVER POSSIBLE

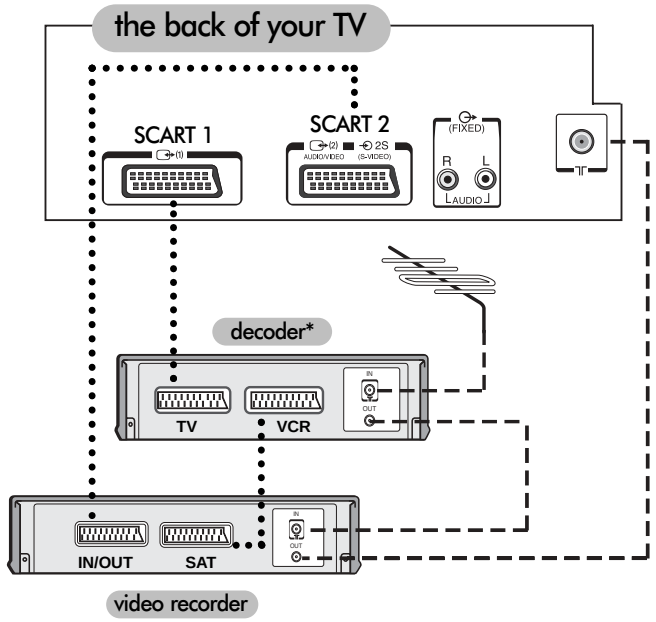
Aerial cables:

Connect the aerial to the socket on the rear of the television. If you use a decoder* and/or a video recorder it is essential that the aerial cable is connected through the decoder and/or through the video recorder to the television.

Scart leads:

Connect the video recorder **IN/OUT** socket to the TV. Connect the decoder **TV** socket to the TV. Connect the video recorder **SAT** socket to the decoder **VCR** socket.

Before running ***Auto tuning*** put your decoder and video recorder into **Standby**.



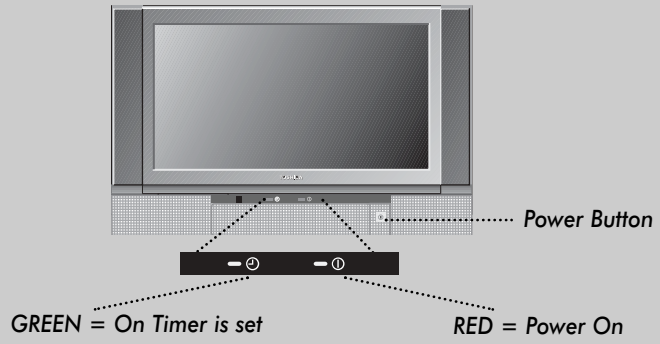
*a decoder could be: Digital Satellite, Analogue Satellite, or any other compatible decoder.

…switching on…

28Z23G / 28Z23B / 28Z27B models:

On the FRONT of the TV:

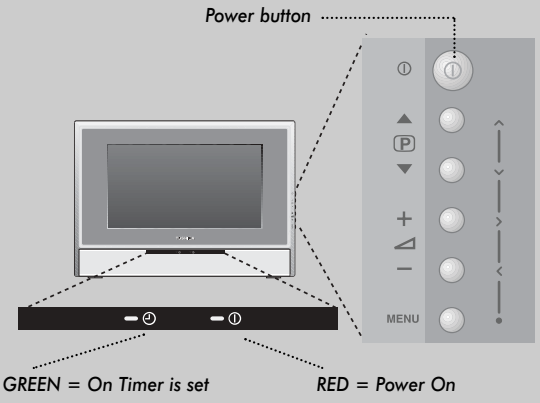
If the red power-on light on the front is unlit, press the POWER button on the FRONT to switch the set on, then press a number button on the remote control to see the screen.



32Z23G / 32Z23B / 32Z27B models:

With the controls on the SIDE of the TV:

If the red power-on light on the front is unlit, press the POWER button on the SIDE to switch the set on, then press a number button on the remote control to see the screen.



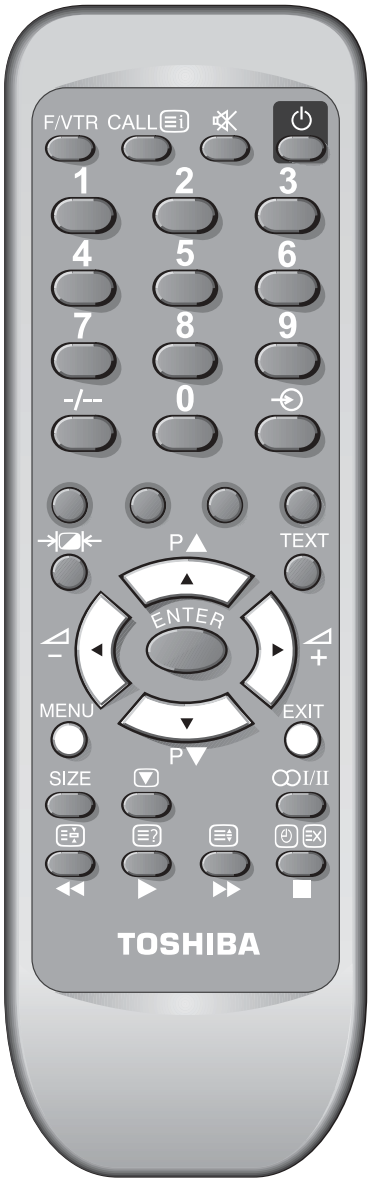
…and with the remote control:

Press the Standby Button ⏻:
This allows you to put the set into standby mode when leaving the TV unattended for short periods of time. To return to TV mode press the ⏻ button, or any of the numbered buttons on the remote control. The picture may take a few seconds to appear.

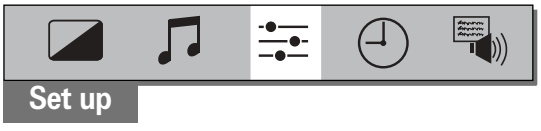
Choosing the Language and Auto tuning

Before running ***Auto tuning*** put your decoder and video recorder to **Standby**.

Selecting your Language and Auto tuning



1 To choose your language, press the **MENU** button, and use the ▶ button to select **Set up** from the top bar.



2 Now press the ▼ button to highlight ***Language*** in the **Set up** menu options.

Set up

Language	◀	English ▶
Auto tuning		▶
Manual tuning		▶
Programme sorting		▶
Teletext		
Character	◀	Character-1 ▶
Mode	◀	Auto ▶

EXIT : To exit

3 Press the ◀ or ▶ button to view the language options available. As you view each language, the wording on the menus will automatically change for you.

4 Now press the ▼ button to highlight ***Auto tuning***.

Set up

Language	◀	English ▶
Auto tuning		▶
Manual tuning		▶
Programme sorting		▶
Teletext		
Character	◀	Character-1 ▶
Mode	◀	Auto ▶

EXIT : To exit

5 Then the ▶ button to go to the ***Auto tuning*** screen.

Auto tuning

Previous settings will be lost!
EXIT for no change.

† System ◀ I ▶
Start ▶

EXIT : To exit

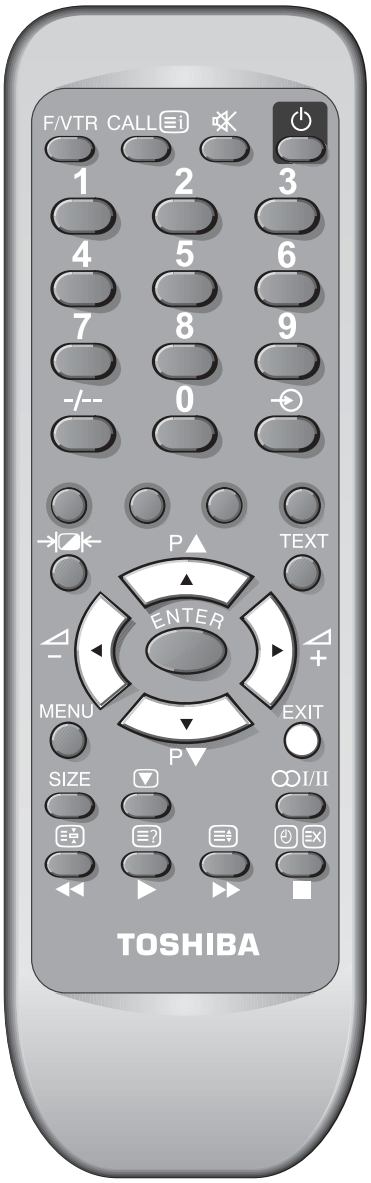
For UK only:
Press **ENTER** to start and go to ***step 8*** *on the next page.*

For Continental Europe:
You will need to choose the ***System***† necessary for where you live. *See* ***step 6*** *on the next page.*

†***for Continental Europe only.***

Choosing the System†

Choosing the System†



*You will need to choose the **System**† necessary for where you live:*

6 Press the ▶ button repeatedly to select your **System**†:

B/G – Continental Europe, D/K – Eastern Europe, I – UK, L1, L2 – France

7 With the ▼ button highlight **START** and then press the ▶ button.

8 The search will begin for all available stations.

▶▶▶ will flash and the bullet will move along the line as the search progresses. As a station is found it will appear on the screen and be added to the list.

Allow the television to complete the search.

Auto tuning

Searching ▶ ▶ ▶ Ch 32

Prog.	Sys.†		Channel	Station
1	I		22	BBC1
2	I		28	BBC2
3	I		25	ITV
4	I		32	CH4
5	I	*	21	
6	I	*	21	
7	I	*	21	

…Your TV may display different **Channel** numbers…

EXIT : To exit

9 When the search is complete the TV will automatically return to programme position 1. This may not be a clear picture, so you may wish to change the station order, using ***Programme sorting*** *on page 9.*

If you cannot connect your television to the decoder or video recorder using Scart leads, you will need to allocate a programme position on the television for each, use ***Manual tuning***, see *page 8.*

†***for Continental Europe only.***

Manually tuning your TV

As an alternative to ***Auto tuning***, you can tune-in your Toshiba television manually using ***Manual tuning***. For example: if you have used ***Auto tuning*** but wish to tune-in a station on another ***System***† (*see page 7*); or if you are unable to connect the TV to your video/decoder with a Scart lead.

Manual tuning

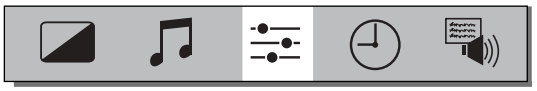
! If you CANNOT connect your television to the decoder or video recorder using Scart leads: You will need to allocate a programme position on the television for each. Turn the decoder on to a free channel, i.e. a channel you have not had to pay for, insert a pre-recorded tape in the video and press PLAY, then Manual tune...

These options will appear as you move across the screen.

Programme	System† *Continental Europe only*	Search	Programme skip/ Channel	Manual fine tuning	Station

Programme: The number to be pressed on the remote control.
System†: Specific to certain areas
Search: Search up and down for a signal.
Programme skip: ∗ means nothing has been stored or the facility to *skip* the channel is ON. *See page 10.*
Channel: The channel number on which a station is being broadcast.
Manual fine tuning: Only used if you experience interference/weak signal. *See page 10.*
Station: Station identification. You can use the ▲ or ▼ and ◄ or ► buttons to enter up to eight characters.

1 From the top menu bar select **Set up** and with the ▼ button highlight ***Manual tuning*** and the ▶ button to select.



Set up

Language	English
Auto tuning	
Manual tuning	
Programme sorting	
Teletext	
Character	Character-1
Mode	Auto

2 Using the ▲ or ▼ button, highlight the programme postion you require e.g. we suggest ***Prog. 0*** for your video recorder.

...Your TV may display different **Channel** *numbers...*

Manual tuning

Prog.	Sys.†	Channel	Station
0	I	60	VCR
1	I	22	BBC1
2	I	28	BBC2
3	I	25	ITV
4	I	32	CH4
5	I	45	
6	I	54	

ENTER : To select
EXIT : To exit

3 Press **ENTER** to select.

Manual tuning

System†

0	I		60	0	VCR

4 Press the ▶ button to select ***System***† and use ▲ or ▼ to change (*if required, see page 7*).

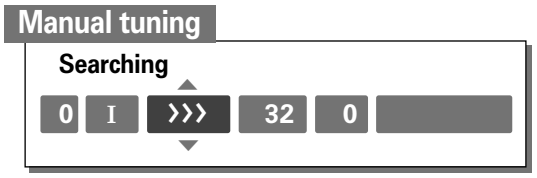
5 Press the ▶ button to select ***Search***.

Continues on the next page

†for Continental Europe only.

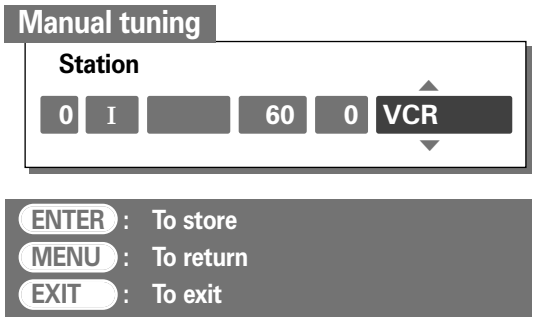
Manually tuning your TV continued
Sorting programme positions

6 Press the ▲ button to begin the search. ***Searching*** will flash and the television will show the channel numbers whilst the search is progressing.



7 *On finding a signal it will show on the television, if it is not your video recorder, press the ▲ button again to restart the search.*

8 When the signal from your video recorder is found, press the ▶ button to move along to ***Station***. With the ▲ or ▼ and ◀ or ▶ buttons put in the required characters, e.g. **VCR**.



9 Now press **ENTER** to store.

10 Repeat for each ***programme position*** you want to tune e.g. to tune your decoder to ***Programme Position 6*** press the ▲ or ▼ button repeatedly to select **6**, press the ▶ button to select ***System***† then repeat from ***step 4***. Or, press **MENU** to return to the list of channels and select the next number to tune.

11 Press **EXIT** when you have finished tuning in.

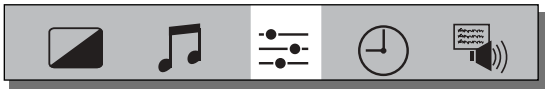
PLEASE NOTE This TV has direct channel entry if the channel numbers are known. Select the ***Manual tuning*** screen in **Step 3**. Enter the ***Programme number***, the ***System***†, then ***Channel*** number. Press **ENTER** to store.

†***for Continental Europe only.***

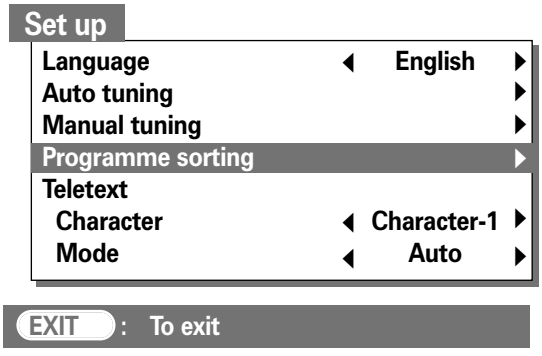
To sort programme positions

*After tuning, if you want to change the position of certain programmes you can. **Programme sorting** is an easy way of storing each channel on the programme position of your choice.*

1 Press the **MENU** button and then the ◀ or ▶ button to select the **Set up** option from the top bar.

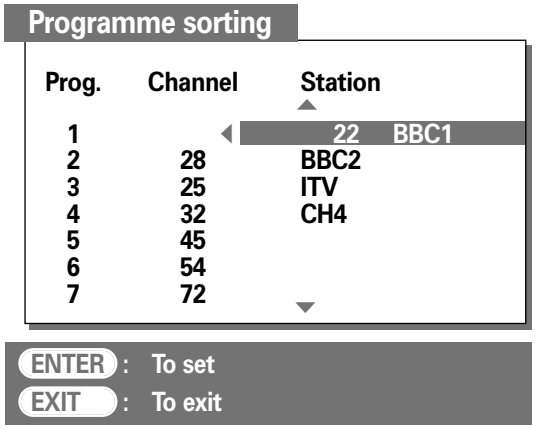


2 Press ▼ to highlight ***Programme sorting*** and ▶ to select.



3 The list of stations is now showing. With the ▲ or ▼ button highlight the station you want to *move* and press **ENTER** (or ▶) to select.

As you do so the selected station will be moved to the right of the screen.

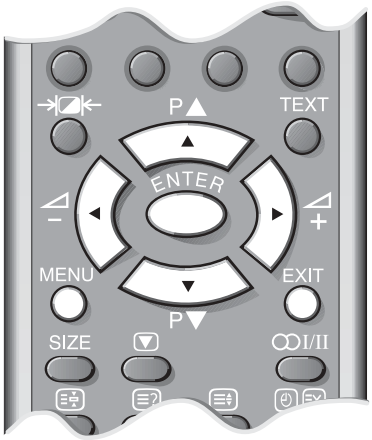


4 Use the ▲ or ▼ button to move through the list to your *preferred* position. As you do so the other stations will move to make room.

5 Now press the **ENTER** (or ◀) button to set your move.

6 Repeat as neccesary and then press **EXIT**.

Manual fine tuning and programme skip



Manual fine tuning

Manual fine tuning should not be required unless you experience interference or a weak signal.

1 Select *Manual tuning* from the **Set up** menu.

Manual tuning

Prog.	Sys.†	Channel	Station
1	I	22	BBC1
2	I	28	BBC2
3	I	25	ITV
4	I	32	CH4
5	I	45	
6	I	54	
7	I	72	

ENTER : To select
EXIT : To exit

2 With the station highlighted, press **ENTER** to select.

3 Press the ▶ button repeatedly until the words *Manual fine tuning* are showing.

Manual tuning

Manual fine tuning

1	I		22	+ 2	BBC1

ENTER : To store
MENU : To return
EXIT : To exit

4 With the ▲ or ▼ button adjust to get the best picture and sound.

5 Press **ENTER** to store and then **EXIT**.

Programme skip

To prevent certain programmes from being viewed, for example, a certain film by your children whilst you are out for the evening, you can skip the programme position and take the remote control with you. The television will still function as normal using the controls on the front or side of it, but the set will not show the skipped programme position.

1 Select *Manual tuning* from the **Set up** menu.

Manual tuning

Prog.	Sys.†	Channel	Station
0	I	60	VCR
1	I	22	BBC1
2	I	28	BBC2
3	I	25	ITV
4	I	32	CH4
5	I	45	
6	I	54	

ENTER : To select
EXIT : To exit

2 Use the ▲ or ▼ button to highlight the programme position to be skipped and press **ENTER** to select.

3 With the ▶ button move along to *Programme skip*.

4 Use the ▲ or ▼ button to turn *Programme skip* : **On**. Press **ENTER** to store.

Manual tuning

* on the screen indicates a skipped programme position.

Programme skip : On

2	I		* 28	0	BBC2

ENTER : To store
MENU : To return
EXIT : To exit

5 Then press the **MENU** button and either repeat from ***Step 2*** or press **EXIT** to finish.

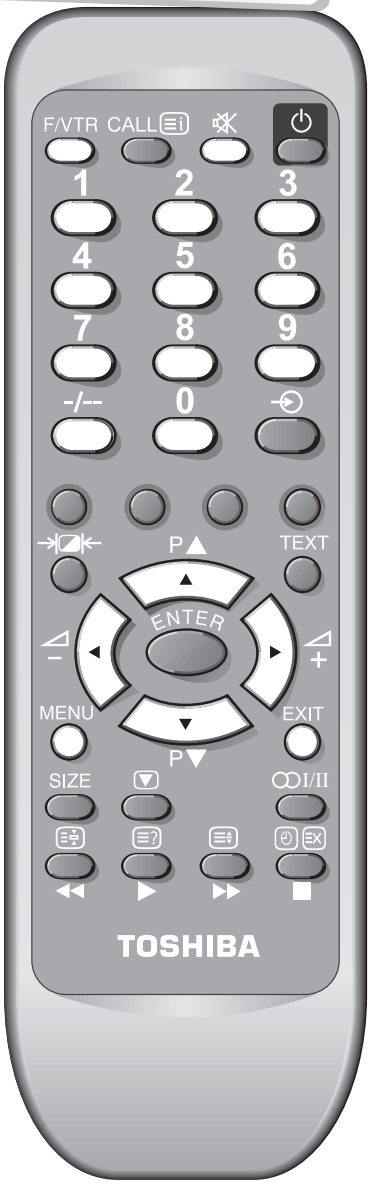
Each programme position has to be INDIVIDUALLY selected and set with *Programme skip* **On** or **Off**.

The *skipped* programme positions ***cannot*** now be selected by the ▲ **P** ▼ buttons or by the controls on the front or side of the TV, but can still be accessed by the number buttons on the remote control. To turn *Programme skip* **OFF**, repeat the procedure on the chosen channel.

†***for Continental Europe only.***

General and sound controls

Pressing the F/VTR button at the same time will speed up most functions...



Selecting and changing programme position

For programme positions *below* 10, press the -/-- button to select —. Enter the desired programme position number using the numbered button on the remote control.

For programme positions *above* 9, press the -/-- button to select — —. Enter the desired two digit programme position number: 10-99.

You can also change the programme position by using the **P ▲** or the **P ▼** button.

The programme position will be displayed on the screen with the Stereo/Mono indicator, described *on page 15*.

Volume control

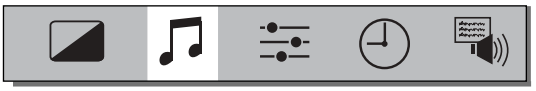
Volume

Press the ◀ or ▶ button to adjust the volume.

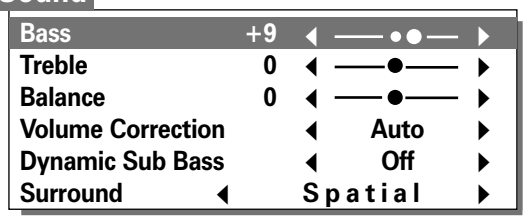
Sound Mute

Press the 🔇 button to turn the sound off. Press it again and the sound will return.

Bass, treble and balance adjustments



Sound



EXIT : To exit

** These features are only available on models **28Z27B** and **32Z27B**.*

1. Press the **MENU** button on the remote control, and the ◀ or ▶ button to select the **Sound** option from the top bar.
2. Press the ▼ button to highlight ***Bass, Treble*** or ***Balance*** from the **Sound** menu and then the ◀ or ▶ button to change the setting.

Volume Correction

Volume Correction will help reduce the difference of volume from one programme to another.

1. From the **Sound** menu highlight ***Volume Correction.***
2. Choose between **Auto** and **Off**.

Dynamic Sub Bass*

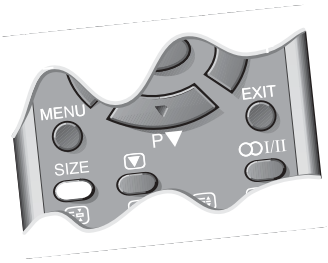
** Available on models **28Z27B** and **32Z27B**.*

This feature allows you to filter the level of sound, to give a richer sound.

1. From the **Sound** menu highlight ***Dynamic Sub Bass.***
2. With the ◀ or ▶ button choose between **Off, Low, Mid** and **High**. **High** being the richest sound.

Widescreen viewing

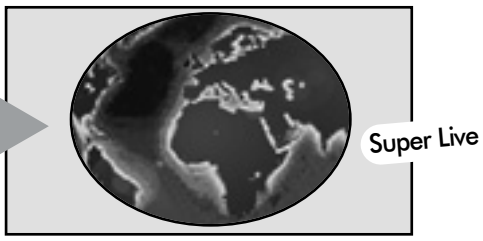
This set is capable of showing broadcasts in a number of formats. Depending on the type of broadcast being transmitted you may select between ***Super Live, Cinema, Subtitle, Wide*** and ***4:3***.



Press the SIZE button repeatedly to view the options available.

Super Live

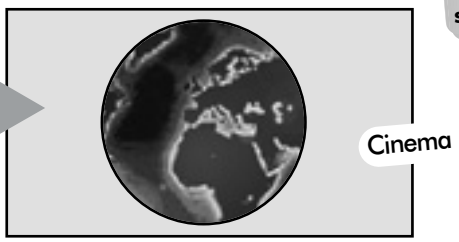
This setting will enlarge the image to fit the screen by stretching the image horizontally, holding the correct proportions at the centre of the image.



Experiment with them all until you find a style that suits you...

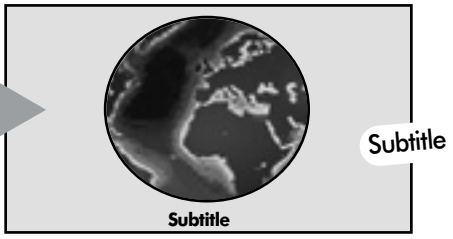
Cinema

When watching 'letterbox format' films/video tapes, this setting will eliminate or reduce the black bars at the top and bottom of the screen by zooming in and selecting the image without distortion.



Subtitle

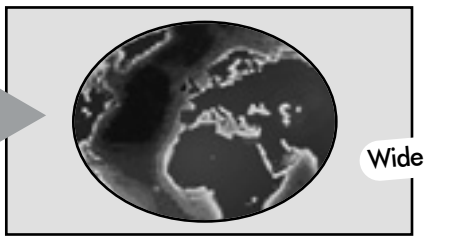
When subtitles are included on a letterbox format broadcast, this setting will raise the picture to ensure that all the text is displayed.



! Whenever the MENU button is pressed the picture size setting will change while the menus are ON the screen. This is to ensure the menus do not overlap the edges of the viewable area.

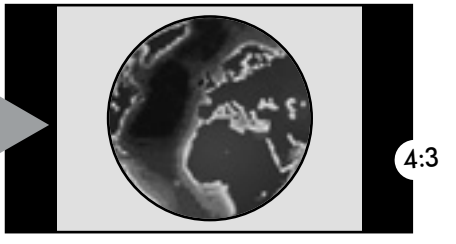
Wide

Use this setting when watching a widescreen DVD, widescreen video tape or a 16:9 broadcast (when available). Due to the range of widescreen formats (16:9, 14:9, 20:9 etc.) you may see black bars on the top and bottom of the screen.



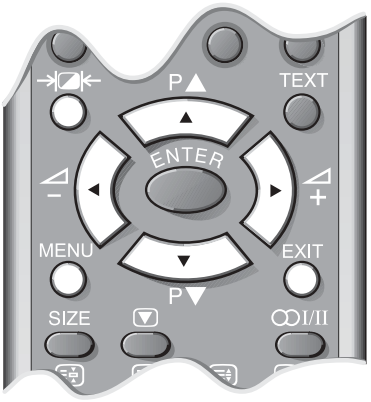
4:3

Use this setting to view a true 4:3 broadcast.



Picture adjustments

This television offers you the choice of personalising the picture style to suit your own preferences.

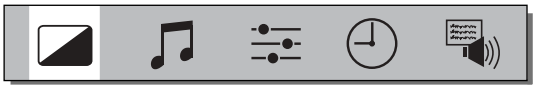


Picture preferences

By pressing the →◪← button you can view the different picture styles available:

Picture mode-1 to ***3*** for preset options and, ***Picture mode-M*** is for your own settings:

1 So, to set your own, choose **Picture** from the top menu bar.



Picture

Contrast	60
Brightness	50
Colour	50
Tint	0
Sharpness	0
Noise Reduction	Off

EXIT : To exit

Within this **Picture** menu you have the options to adjust the ***Contrast***, ***Brightness***, ***Colour***, ***Tint*** and ***Sharpness***.

*The **Tint** can only be adjusted on a signal from an NTSC video recorder or DVD player.*

2 Using the ◀ or ▶ button alter to suit your taste.

Noise Reduction

Noise Reduction *enables you to 'soften' the screen representation of a weak signal.*

1 Select ***Noise Reduction*** from the **Picture** menu. Select between **On** and **Off** to obtain the best picture. The differences may not always be noticeable.

Picture size/position

Adjustments to picture positioning may be made using the ***Horizontal position, Horizontal width, Vertical position*** *and* ***Vertical size*** *options.*

1 Press the **MENU** button, and use the ▶ button to select the **Feature menu**.

2 Now repeatedly press the ▼ button to highlight one of the options.

Feature menu

EXT2 input	AV
Horizontal position	
Horizontal width	
Vertical position	
Vertical size	
Panel lock	Off
Automatic format	Off

! These options alter depending on the widescreen format you have chosen, as detailed on page 12, and when viewing connected equipment.

EXIT : To exit

3 Press the ◀ or ▶ button to adjust.

Horizontal position

Automatic format (Widescreen)

When this TV receives a true Widescreen picture and ***Automatic format*** *is* ***On****, it will automatically be displayed in Widescreen format, irrespective of the TV's previous setting.*

1 From the **Feature menu** highlight ***Automatic Format*** and with the ◀ or ▶ button turn it **On** or **Off**.

Virtual Dolby Surround

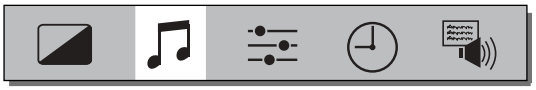
28Z27B and 32Z27B models only

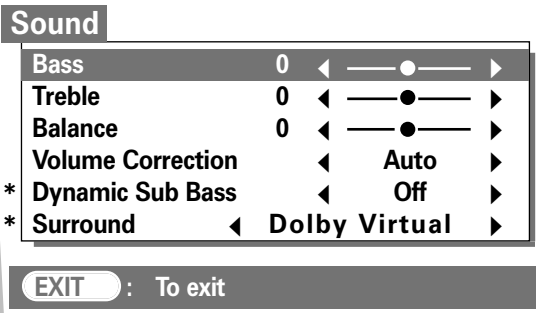
Programmes with Dolby Surround (or Dolby Digital) soundtracks will be greatly enhanced allowing you to enjoy the effects of Virtual Surround from your TV and connected equipment, e.g. DVD player, games console, etc.

Home theatre surround systems require five or more separate speakers but this is not always convenient and this TV offers you the Virtual Dolby Surround option.

In order to obtain the full effect of this Virtual Surround, sit in the 'sweet spot'; squarely in front of the two speakers in the TV. This means that the timing and frequency response information is preserved, opening your ears to a new world of sound.

Virtual Dolby Surround brings you the benefits of a five-speaker system WITHOUT connecting any additional speakers...





These features are only available on models* **28Z27B *and* **32Z27B**.

1. Sit directly in front of the TV and select the ***Sound*** option from the top menu bar.
2. Use the ▲ or ▼ button to highlight ***Surround***.
3. Now, with the ◀ or ▶ button, choose between **Off**, **Spatial**, **Panorama** or **Dolby Virtual**.
4. Then **EXIT**.

! **Dolby Virtual (Surround)** is **not** available through headphones.

Spatial...

Selecting the **Spatial** *Audio mode will give you a widening of the sound.*

The sound will give the impression of coming from beyond the edges of the TV set.

Panorama...

If you select the **Panorama** *option you will hear not just a widening of the sound, but also an amount of surround sound.*

Traditional surround systems would give you left, right, centre and surround channels. In **Panorama** *mode you can have a sensation of these systems without the need for extra speakers.*

Dolby Virtual...

Dolby Virtual *is the abbreviation of* ***Virtual Dolby Surround*** *or Virtual Dolby Digital.*

Virtual Dolby Surround *enables a single listener to enjoy convincing surround sound over just two loudspeakers from a television. After multichannel programme material is decoded by the integrated Dolby Surround Pro Logic decoder, the surround signal is processed by a virtualiser and mixed back into the left and right channels. Playback over stereo speakers results in a phantom centre and a realistic surround image.*

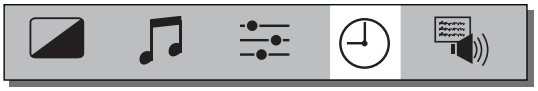
Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

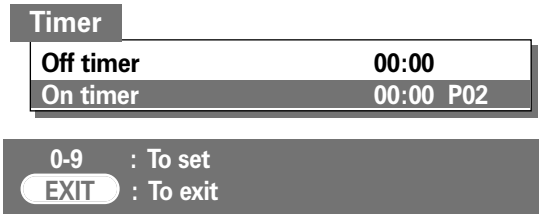
The timer, time display, panel lock, stereo/bilingual transmissions

The Timer

*You can tell the TV to turn itself **ON** or **OFF** after a certain time.*

1 Select the ***Timer*** option from the top menu bar.





2 Select the ***On timer*** (or the ***Off timer***). If, for example, you want the TV to turn ON (or OFF) in one and a half hours time, enter 01:30 using the numbered buttons or the ▶ and ◀ buttons to increase/decrease in steps of 30 minutes.

3 When setting the ***On timer***, you must enter the programme position number you want to watch. You must put the set into Standby mode by pressing the ⏻ button.

Any equipment connected with Scart leads must also be put into Standby mode to prevent them being displayed when the timer switches on.

When the ***On timer*** has been set, the GREEN On timer indicator on the front of the TV will be lit (*see page 5*).

*If the **On timer** has been set, you do not have to wait to watch the television. You can bring the set back to life by pressing the ⏻ button. However, the GREEN timer light will stay on until the set time period has passed, at which point the TV will go to the chosen channel.*

4 To cancel the ***On timer***, enter zero in each position including the programme position.

When the ***Off timer*** is set and there is one minute left before the TV will turn **off** a reminder will show on screen e.g. **Off timer / 59** means there are 59 seconds left.

To turn the TV back on, press the ⏻ or a number button on the remote control.

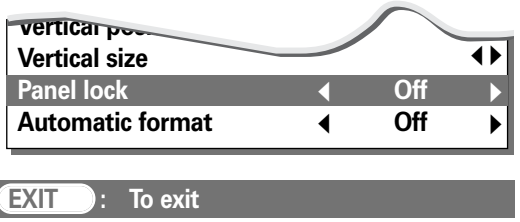
The Time Display

The time display facility allows you to see the current time on the TV screen.

If you press the ⏲ button on the remote control whilst watching a normal TV broadcast, you will see a time display from the broadcaster. It will remain on the screen for about 5 seconds.

Panel Lock

***Panel lock** allows you to disable the buttons on the front/side of the TV set so that channels cannot be changed. You can though, still use the buttons on the remote control.*



1 From the **Feature menu** select ***Panel lock*** and choose **On** or **Off** with the ◀ or ▶ button.

With *Panel lock On*, once the TV has been turned off using the ON/OFF button on the front/side of the TV, the TV can only be viewed again after switching on with the ON/OFF button and then pressing the Standby button ⏻ on the remote control.

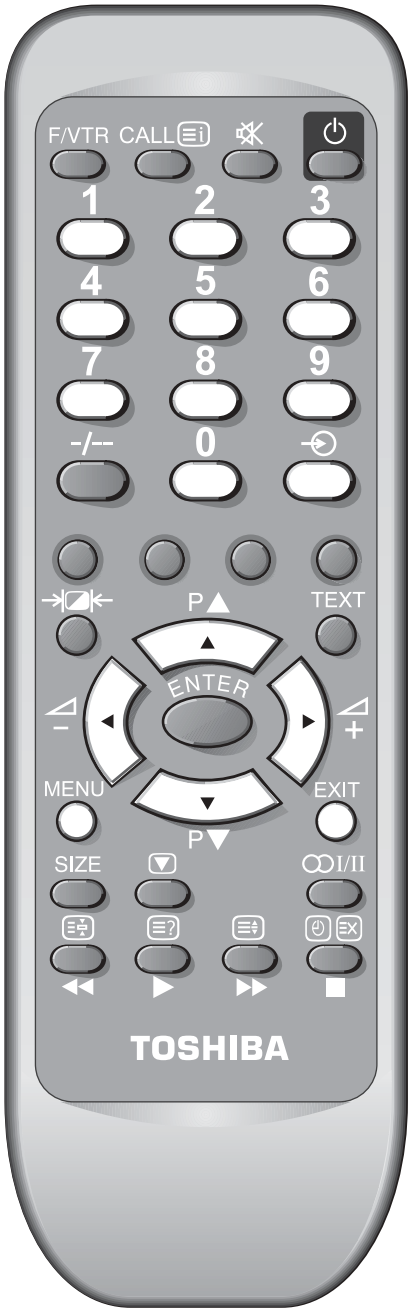
Stereo and Bilingual transmissions

If Stereo or Dual language broadcasts are transmitted the word Stereo or Dual will appear on the screen, disappearing after a few seconds. The display will reappear each time you change programme positions, provided that the broadcast is in stereo. If the broadcast is not in stereo the word Mono will appear.

Stereo... Choose the required programme number. Press the ∞ I/II button repeatedly, to select between ***Stereo*** and ***Mono***.

Bilingual... Bilingual transmissions are rare. If they are transmitted the word ***Dual*** will display. Choose the required programme number and if the word ***Dual*** does appear press the ∞ I/II button to select between ***Dual 1***, ***Dual 2*** and ***Mono***.

Input selection and AV connections



Input Selection

Most video recorders and decoders send a signal through the Scart lead to switch the TV to the correct Input socket. Alternatively, you may select it with the external source selection button on the remote control if the TV does not switch over automatically.

1. Press the ⇥ button to bring up **EXT1** on the screen. This will display the signal coming in through *Scart 1*.
2. Press the ⇥ button again to select the equipment connected to *Scart 2* (**EXT2**).
3. And press the ⇥ button again for **EXT3** (⇥ (3) on the front/side* of the TV).
4. To return to TV mode, simply press one of the numbered buttons on the remote control. To view the connected equipment once again, press the ⇥ button again.

An S after EXT2 *i.e. EXT2S*, indicates the input is set for an S-Video signal, see below.

Selecting the **INPUT** Signal for Scart 2

*This feature allows you to select the type of video recorder to be connected to Scart 2 on the back of the television. **AV** is the most common and comes from standard video recorders and decoders whereas **S-Video** signals are less common. Please refer to the video manufacturer's specification/manual.*

1. From the **Feature menu** select ***EXT2 input*** and with ◀ and ▶ select the required ***Input*** for ***EXT2***: **AV** or **S-Video.**

Feature menu

EXT2 input	◀	AV	▶
Horizontal position			◀▶
Horizontal width			◀▶
Vertical position			◀▶
Vertical size			◀▶
Panel lock	◀	Off	▶
Automatic format	◀	Off	▶

! These options alter depending on the widescreen format you have chosen, as detailed on page 12, and when viewing connected equipment.

EXIT : To exit

***Front connections 28Z23G 28Z23B 28Z27B**
***Side connections 32Z23G 32Z23B 32Z27B**

Teletext – setting up

This TV offers two ways of viewing text – ***AUTO*** and ***LIST*** which are explained on the next page.

Selecting the character set and viewing mode and general information

Selecting characters and modes

*Before using teletext you can choose the correct alphabet (**Character**) and whether to view in **List** or **Auto** mode (explained on the next page).*

1. From the **Set up** menu, use the ▲ or ▼ button to highlight ***Character***.
2. Use the ▶ button to select your required character set: **Character-1** to **Character-6**.

Use Character-1 for Western European Countries.

Set up

Language	◀ English	▶
Auto tuning		▶
Manual tuning		▶
Programme sorting		▶
Teletext		
Character	◀ Character-1	▶
Mode	◀ Auto	▶

EXIT : To exit

3. With the ▼ button highlight ***Mode***.
4. With the ◀ and ▶ buttons choose ***Auto*** or ***List***.
5. Press **EXIT** to finish.

About teletext

The TEXT button:

Pressing the **TEXT** button once will bring up the teletext screen. Pressing it again will superimpose it over the TV picture. A third press will return you to the normal TV screen. You need to return to normal viewing if you wish to change channels.

When you first press the **TEXT** button to access the text service, the first page you see will be the *initial* page.

In ***Auto*** mode this displays the main subjects available and their relevant page numbers.

In ***List*** mode you will see whichever page number is currently stored on the red button.

To access any teletext page, enter the 3 digit page number, using the numbered buttons on the remote control, *e.g. 430*.

To advance to the next page of teletext, press the **P ▲** button, to go back to the previous page press the **P ▼** button.

Teletext continued on the next page…

Teletext continued – *Auto* and *List* modes

Moving around the teletext pages in ***Auto*** and ***List*** modes and selecting favourite pages

Selecting Pages

*There are two **Modes**: **Auto** will display **FASTEXT**, if available. **List** will display your four favourite pages. In either mode, as an alternative to the coloured buttons you can access a page by entering a 3 digit number, using the buttons on the remote control.*

Auto

Press the **TEXT** button to access teletext.

In ***Auto*** mode, if **FASTEXT** *is* available, you will see four coloured titles at the base of the screen.

To access one of the four given subjects, press the relevant coloured button on the remote control, corresponding to the title.

For further information on your particular text system(s), see the broadcast teletext index page or, consult your local Toshiba dealer.

List

In ***List*** mode, the four choices at the bottom of the screen are now numbers – *e.g.* 100, 200, 300 and 400, which have been programmed into the TV's memory. They will flash until the pages have been found and stored.

To view these pages use the coloured prompt buttons *e.g.* press the **GREEN** button to view page 200.

If you want to *change* these stored pages press the coloured button for the colour you want to change, *e.g.* **GREEN** and enter the 3 digit number. This number will change in the top left of the screen and in the coloured highlight.

Now press **ENTER** to store your choice. The bar at the bottom of the screen will flash white.

If you do not press **ENTER** to confirm your change, you will not have stored your choice and it will be forgotten.

You may view other pages by simply entering the 3 digit page number – but DO NOT press **ENTER** or you will lose the favourite already stored.

Whenever you press **ENTER** all **four** page numbers showing along the bottom will be stored and the previous ones will be lost.

Moving around the pages

In both ***Auto*** and ***List*** modes.

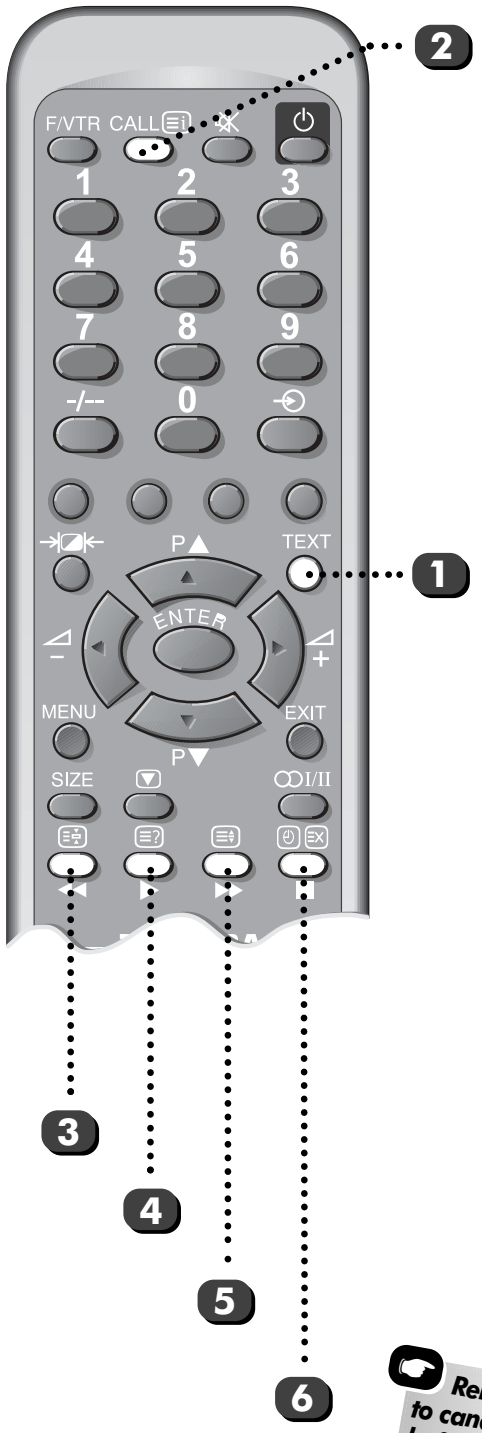
Use the ▲ and ▼ buttons to go to the next or previous page.

The rest of the text control buttons are explained on the next page…

Teletext continued – control buttons

Now you have set up teletext, below is a guide to the remote control teletext buttons and their functions.

Using the buttons on the remote control



1 **TEXT** *To display a page of teletext:*

Press the **TEXT** button to display teletext**.** Press again to superimpose the teletext over a normal broadcast picture. Press again to return to normal TV mode. You cannot change programmes until you return to normal TV.

2 *To display an index/initial page:*

In ***Fastext***-mode
Press the button to access index pages. The one displayed is dependant on the broadcaster.

In ***List***-mode
Press the button to return to the page stored on the red button.

3 *To hold a wanted page:*

At times it is convenient to hold a page of teletext. Press the button and will appear in the top left of the screen. Press again to release.

4 *To reveal concealed text:*

Some pages cover topics such as quizzes and jokes. To discover the solutions press the button.

5 *To enlarge the teletext display size:*

Press the button once to enlarge the top half of the page, press again to enlarge the bottom half of the page. Press again to revert to the normal size.

6 *To select a page whilst viewing a normal picture:*

When in teletext mode, if a page selection is made and then the button is pressed, a normal picture will be displayed. The TV will indicate when the page is present by displaying the number of the text page at the top of the screen. Press the **TEXT** button to view the page.

To display news flashes:
To view news flashes as they are broadcast, select the news flash page for the particular teletext service (see the index page of teletext service). The news flashes will be displayed as and when they are broadcast. Press the button to cancel the display.

Remember to cancel text before changing channels – press the TEXT button twice.

You must cancel the news flash page before changing channels.

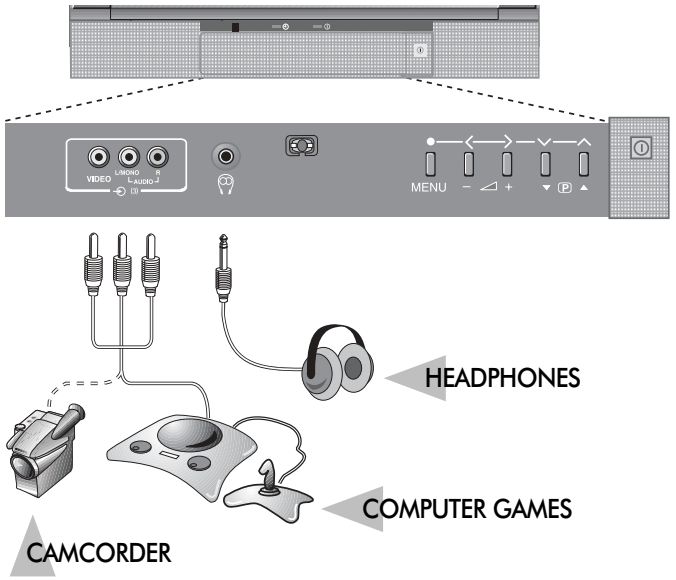
! *When connecting equipment always refer to the relevant owner's manual for full details.*

Front/side connections and controls

You can connect a wide variety of external equipment via the *sockets* located behind the flap on the TV. This is on the **front** of the TV on models 28Z23G, 28Z23B and 28Z27B and on the **side** of the TV for models 32Z23G, 32Z23B and 32Z27B. Press the centre of the flap to open.

Whilst all the necessary adjustments and controls for your new TV are made using the remote control, the buttons on the front/side of the TV may be used for some functions...

28Z23G / 28Z23B / 28Z27B *– front connections & panel...*



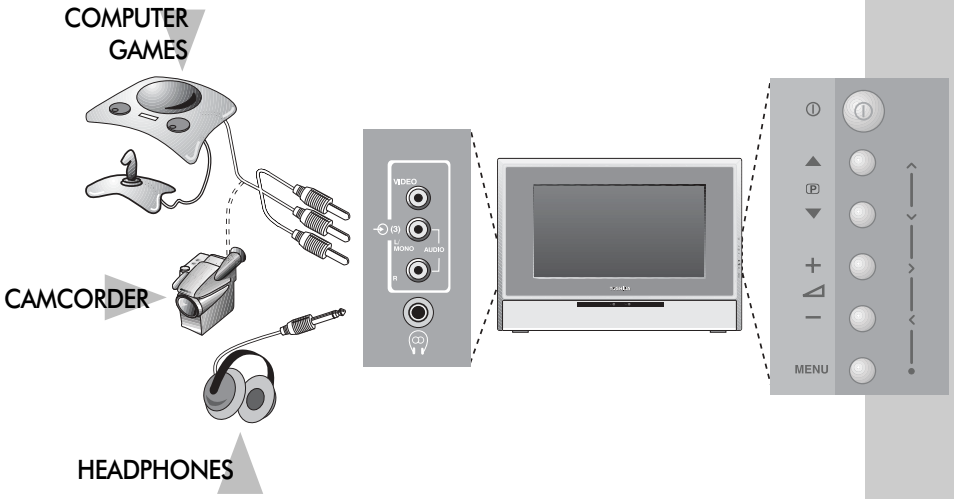
For example, to alter the volume press the — ◿ + buttons,

and to alter the programme position press the ▼ Ⓟ ▲ buttons...

...press the **MENU** button to access the on screen menus and the — ◿ + buttons and the ▼ Ⓟ ▲ buttons to navigate and select the options.

Press the **MENU** button until the display disappears.

32Z23G / 32Z23B / 32Z27B *– side connections & panel...*



For example, to alter the volume press the + ◿ — buttons,

and to alter the programme position press the ▲ Ⓟ ▼ buttons...

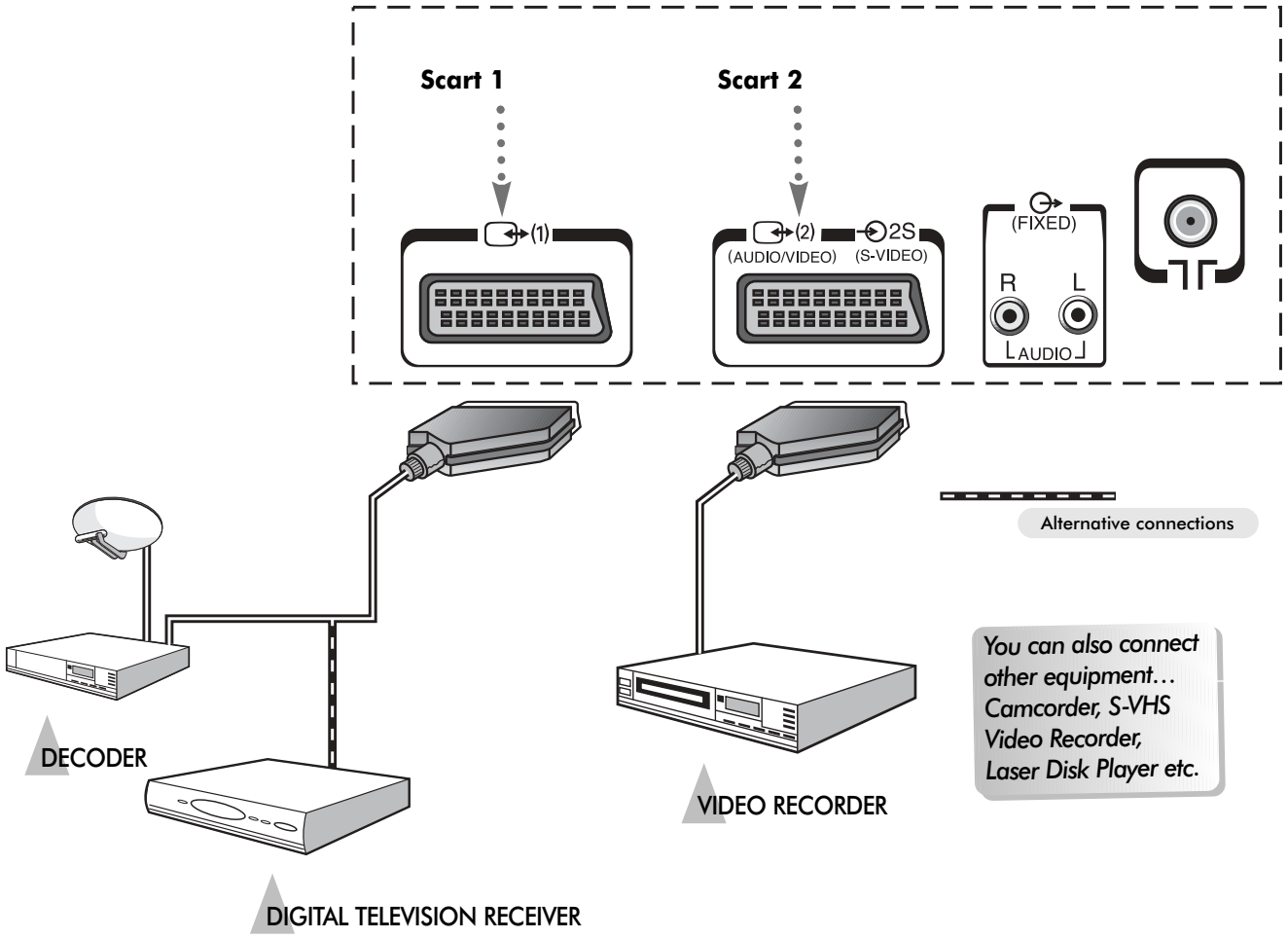
...press the **MENU** button and control the sound and picture options with the 〈, 〉, ⌄ and ⌃ buttons.

Press the **MENU** button until the display disappears.

Before connecting any external equipment, turn off all main power switches.
If you connect mono sound equipment to ***Input 3***, connect the audio output of the equipment to the L/Mono socket on the TV.
To select the front/side Inputs, press the ⊖ button until the display shows ***EXT3*** as described *on page 16*.
Please note: Inserting the headphone jack will mute the sound from all speakers.

Back connections

Back connections



Before connecting any external equipment, turn off all main power switches.

If connecting S-VIDEO equipment, set the **INPUT** for ***EXT2*** accordingly. *See page 16.*

In addition there is a fixed external audio output which enables the connection to a suitable Hi-Fi unit.

If your TV automatically switches over to monitor the external equipment you can return to normal TV simply by pressing the desired programme position button.

To recall the external equipment, press the ⊖ button repeatedly to select between ***EXT1***, ***EXT2*** or ***EXT3***.

To return to normal TV press one of the numbered buttons on the remote control.

The on-screen Menus

This page is intended as a quick reference guide to the main on-screen menus.

Press the **MENU** button on the remote control to see your top menu bar. This white menu bar will show five different topics shown in symbols. As you select each symbol by pressing the ◀ or ▶ button, its respective options will appear below. To use the options press the ▼ button on the remote control to move you down through them.

The functions of each menu are described in detail throughout this manual.

The Picture Menu

Picture

Contrast	60
Brightness	50
Colour	50
Tint	0
Sharpness	0
Noise Reduction	On

EXIT : To exit

The Sound Menu

Sound

	Bass	0
	Treble	0
	Balance	0
	Volume Correction	Auto
*	Dynamic Sub Bass	Off
*	Surround	Dolby Virtual

EXIT : To exit

* These features are only available on models **28Z27B** and **32Z27B**.

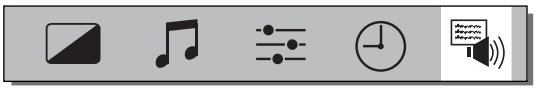
The Timer Menu

Timer

Off timer	00:00
On timer	00:00 P01

0-9 : To set
EXIT : To exit

The Feature Menu



Feature menu

EXT2 input	AV
Horizontal position	
Horizontal width	
Vertical position	
Vertical size	
Panel lock	Off
Automatic format	On

! These options alter depending on the widescreen format you have chosen, as detailed on page 12, and when viewing connected equipment.

EXIT : To exit

The Set up Menu

Set up

Language	English
Auto tuning	
Manual tuning	
Programme sorting	
Teletext	
Character	Character-1
Mode	Auto

EXIT : To exit

When watching an external source...

Set up

Language	English
Teletext	
Character	Character-1
Mode	Auto

EXIT : To exit

Questions and Answers...

...For quick reference to topics, see the INDEX at the back of this manual.

If you experience what seem like problems operating your TV, we recommend you read through these simple checks.

Q *Why is there no sound or picture?*

A Check that the mains switch is on and check all the connections. Press the Standby button ⏻ on the remote control to make sure that the TV is not in Standby mode.

Q *Why are there coloured patches on the screen?*

A These are often caused by magnetic field interference. Turn off the TV by the ON/OFF button on the front/side of the TV for 60 minutes and then turn it on again.

Q *I have a picture, but why have I no sound?*

A Press the volume button ◿ + or the sound mute 🔇 button.

Q *Why can't I see the video tape I am playing?*

A Make sure you have connected the VCR to the TV using a ***Scart lead*** and then select the correct input using the ⇥ button.

Q *Can anything else cause a poor picture?*

A Yes, interference or a weak signal. Try a different TV station to check. ***Manual fine tuning*** may help.

Q *Why is the video/DVD in black and white?*

A Check that the correct ***input*** socket has been chosen, **S-Video** or **AV**. See ***AV connections***.

Q *Why is the video picture good but there is no sound?*

A Check Scart lead connection.

Q *Why am I having problems with teletext?*

A Good performance of text depends on a good strong broadcast signal. This normally requires a roof or loft aerial. If the Text is unreadable or garbled, check your aerial. Go to the *main index* page of the teletext service and look for the *User Guide*. This will explain the basic operation of teletext in some detail. If you need further information on how to use text *see the teletext section*.

Q *Why doesn't the remote control work?*

A Check that the batteries aren't dead and that they are inserted correctly.

Q *Why don't the controls on the front/side of the TV work?*

A Check that ***Panel lock*** is not **On** in the ***Feature menu***.

Remember...

For television operation queries, please ring the helpline...

Toshiba customer helpline • 0115 976 6958 •

For UK only

Cleaning the screen and cabinet...

*After turning off the power, clean the screen and cabinet with a soft, dry cloth. We recommend that you **do not** use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.*

Disposal...

When the set reaches the end of its useful life please dispose of it in accordance with Local Government Regulations or at a recycling centre.

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Specifications and accessories

Broadcast system/channels

PAL-I	UHF	UK21-UK69
PAL-B/G	UHF	E21-E69
	VHF	E2-E12, S1-S41
SECAM-L	UHF	F21-F69
	VHF	F2-F10, B-Q
SECAM-D/K	UHF	R21-R69
	VHF	R1-R12

Programme Positions 100

Stereo Nicam
2 carrier system

Video Input PAL, SECAM, NTSC 3.58/4.43

External connections

EXT1 Input	21-pin Scart	RGB, A/V
EXT2 Input	21-pin Scart	A/V, S-video
EXT3 Input (front/side)	Phono jack	Video
	Phono jacks	Audio L, R
Fixed Audio Output	Phono jacks	Audio L, R

Visible Screen Size 28Z23G 28Z23B 28Z27B 66cm
32Z23G 32Z23B 32Z27B 76cm

Display 16:9 aspect ratio

Sound output 5W + 5W rms
(at 10% distortion)

Power consumption all models 95W
as specified in EN60107-1 : 1997

Dimensions 28Z23G 28Z23B 28Z27B
840mm (W) 541.3mm (H) 495mm (D)
32Z23G 32Z23B 32Z27B
902mm (W) 594.5mm (H) 548mm (D)

Weight (approx.) 28Z23G 28Z23B 28Z27B 40kg
32Z23G 32Z23B 32Z27B 56kg

Headphone Socket 3.5mm stereo

Accessories Remote control
2 batteries (UM-3, AA, IEC R06, 1.5V)

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